ABSTRACT

Adhesive compositions and methods of using the compositions in the production of laminated veneer lumber (LVL) are disclosed. The adhesive compositions comprise a thermosetting phenol-aldehyde resin having at least one of (A) a number average molecular weight (M_n) of at least about 450, (B) a weight average molecular weight (M_w) of at least about 2000, and (C) a Z-average molecular weight (M_z) of at least about 6000, wherein said M_n, M_w, and M_z are measured using gel permeation chromatography (GPC), a ketone-aldehyde resin cure promoter, and optionally other components (e.g., a tack-promoter or a catalyst). The adhesive compositions minimize or eliminate the art-recognized problems of glue line dryout and steam blowout, associated with LVL manufacture from both low-moisture veneers and high-moisture veneers, respectively. Furthermore, the adhesive compositions provide fast tack-build and curing as well as ultimately good bonding characteristics.